Amendments to the Claims

Please amend Claims 33-35, 47, and 51 as follows.

1. – 32. (Cancelled)

33. (Currently Amended) A system <u>of software components</u> <u>executed by one or more computers, the system</u> comprising:

a source device profile interpreter that interprets a source device profile to convert coordinates in a source device color space to a device-independent color space;

a destination device profile interpreter that interprets a destination device profile to convert coordinates in a destination device color space to the device-independent color space;
and

a color transformer that generates a color map defining a relationship between the source and destination device color spaces based on the converted coordinates and user preferences specified by a user independently of the source and destination device profiles, wherein the user preferences include color conversion preferences,

wherein the color transformer generates the color map in part by reducing color error between the converted coordinates from the source and destination device profile interpreters, and

wherein the source and destination device profile interpreters use forward transformation profiles to produce the converted coordinates, and the color transformer <u>at least</u> adjusts coordinates<u>, thereby generating adjusted</u> <u>coordinates,</u> in the destination device color space to reduce the color error, the color map being based in part on the adjusted coordinates in the destination device color space.

34. (Currently Amended) A system of software components executed by one or more computers, the system comprising:

a source device profile interpreter that interprets a source device profile to convert coordinates in a source device color space to a device-independent color space;

a destination device profile interpreter that interprets a destination device profile to convert coordinates in a destination device color space to the device-independent color space;
and

a color transformer that generates a color map defining a relationship between the source and destination device color spaces based on the converted coordinates and user preferences specified by a user independently of the source and destination device profiles, wherein the user preferences include color conversion preferences, wherein the source device profile contains raw spectral data that characterizes a source device, and the destination device profile contains raw spectral data that characterizes a destination device.

35. (Currently Amended) A system of software components executed by one or more computers, the system comprising:

a source device profile interpreter that interprets a source device profile to convert coordinates in a source device color space to a device-independent color space;

a destination device profile interpreter that interprets a destination device profile to convert coordinates in a destination device color space to the device-independent color space;
and

a color transformer that generates a color map defining a relationship between the source and destination device color spaces based on the converted coordinates and user preferences specified by a user independently of the source and destination device profiles, wherein the user preferences include color conversion preferences, ~~wherein each of the source and destination device profiles defines a forward transformation from one of the source and destination color spaces to the device-independent color space~~ wherein the source device

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profile defines a forward transformation from the source device color space to the device-independent color space, and wherein the destination device profile defines a forward transformation from the destination device color space to the device-independent color space.

36. (Previously Presented) The system of claim 33, wherein the color map includes a look-up table.

37. (Previously Presented) The system of claim 33, wherein the color map includes a mathematical expression.

38. – 46. (Cancelled)

47. (Currently Amended) A system of software components executed by one or more computers, the system comprising:

means for interpreting a source device profile to convert coordinates in a source device color space to a device-independent color space;

means for interpreting a destination device profile to convert coordinates in a destination device color space to the device-independent color space; and

means for generating a color map defining a relationship between the source and destination device color spaces based on the converted coordinates and user preferences specified by a user independently of the source and destination device profiles, wherein the user preferences include color conversion preferences,

wherein the means for generating a color map generates the color map in part by reducing color error between the converted coordinates from the source and destination device profile interpreters, the means for interpreting the source and destination device profiles use forward transformation profiles to produce the converted coordinates, and the means for generating a color map at least adjusts coordinates, thereby generating adjusted coordinates, in the destination device color space to reduce the color error, the color map being based in part on the adjusted coordinates in the destination device color space.

48. (Previously Presented) The system of claim 47, wherein the user preferences include illuminant functions.

49. (Previously Presented) The system of claim 47, wherein the user preferences include observer functions.

50. (Previously Presented) The system of claim 47, wherein the means for generating a color map adjusts the means for interpreting the source and destination device profiles based on the user preferences.

51. (Currently Amended) A method implemented, at least in part, by one or more computers, the method comprising:

interpreting a source device profile to convert coordinates in a source device color space to a device-independent color space;

interpreting a destination device profile to convert coordinates in a destination device color space to the device-independent color space; and

generating a color map defining a relationship between the source and destination device color spaces based on the converted coordinates and user preferences specified by a user independently of the source and destination device profiles, wherein the user preferences include color conversion preferences,

wherein generating a color map includes generating the color map in part by reducing color error between the converted coordinates from the source and destination device profile interpreters, interpreting the source and destination device profiles includes using forward transformation profiles to produce the converted coordinates, and generating a color map includes at least adjusting coordinates, thereby generating adjusted coordinates, in the destination device color space to reduce the color error, the color map being based in part on the adjusted coordinates in the destination device color space.

52. (Previously Presented) The method of claim 51, wherein the user preferences include illuminant functions.

53. (Previously Presented) The method of claim 51, wherein the user preferences include observer functions.

54. – 59. (Cancelled)

60. (Previously Presented) The system of claim 33, wherein the user preferences include illuminant functions.

61. (Previously Presented) The system of claim 33 wherein the user preferences include observer functions.

62. (Previously Presented) The system of claim 33, wherein the color transformer adjusts the source and destination device profile interpreters based on the user preferences.

63. (Previously Presented) The system of claim 33, wherein the source and destination profile interpreters are configured as removable plug-in modules for use by the color transformer.

64. (Previously Presented) The system of claim 33, wherein the source and destination device profile interpreters are configured based on white- and black-point parameters to account for color variations between media and colorants used by different color display devices.

65. (Previously Presented) The system of claim 35, wherein the color transformer adjusts the source and destination device profile interpreters based on the user preferences.

66. (Previously Presented) The system of claim 35, wherein the source and destination profile interpreters are configured as removable plug-in modules for use by the color transformer.

67. (Previously Presented) The system of claim 35, wherein the source and destination device profile interpreters are configured based on white- and black-point parameters to account for color variations between media and colorants used by different color display devices.